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Supporting Enterprise Networks and Operating Environments


SUPPORT

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Year 2000 Compliance:
New DFSORT Features

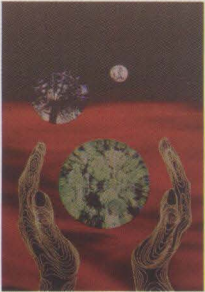
Effective Enterprise Data Access
to Legacy Systems

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10 Year 2000 Compliance: New DFSORT Features

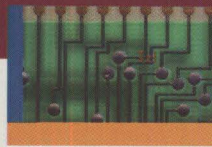
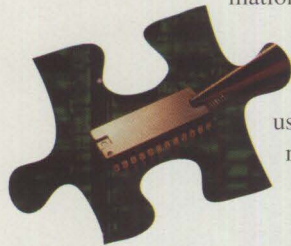


By Michael H. Carroll
DFSORT R13 implements a number of new facilities to sort or merge two-digit years in dates, thus assisting in the ordering of years according to century.

16 Effective Enterprise Data Access to Legacy Systems

By Tim Kessler and Karen Durward

The distributed nature of the user community requires that data be accessible for remote and mobile users. For many, the promise of immediate, remote access to information from anywhere can be accomplished through the use of data access middleware.



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By Leo A. Wrobel

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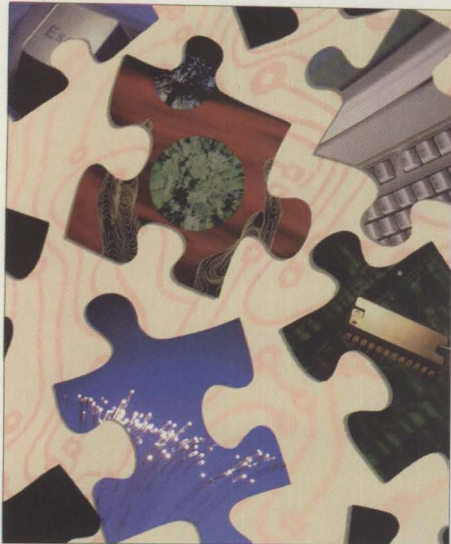
By Guy C. Yost

This article takes a bird's eye view of Microsoft Windows NT Server and addresses the strengths and weaknesses of this platform as well as how it can be leveraged.

50 Protecting Your Network With and Without Firewalls: Part VII – Avoiding the Maginot Line

By Mark Bell

Internet access cannot be properly secured by using a single firewall at a single point of entry in a large network because there are too many potential points at which policies written to support the firewall can be breached. However, small- or medium-sized networks where there are few geographically dispersed personnel and buildings are well suited to the single point of entry model.



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Building the Perfect Beast: Part IV — A Beast With Personality

BY MIKE NORTON

Last month we took a look at the rich OS/2 command environment, which I observed is the heart of our “perfect beast.” I also noted that many users confuse the OS/2 user interface with the operating system itself. While for the Desktop user it may appear to be splitting hairs, drawing a clear distinction between the two is essential in a professional environment. I’ve been reading a book on Windows NT in which the author lavishes praise on the NT Server Manager interface. To paraphrase Jack Nicholson in the movie *A Few Good Men*, “I would bet whomever wrote that had never faced the working end of a network.”

While such interfaces (including the OS/2 LAN Server Administrator facility) are great for adding an occasional user, GUIs are simply too slow and inflexible in comparison to the command environment for most serious network administration. The argument that one system or another provides a better GUI is somewhat irrelevant, but illustrates how equivocating the user interface with the operating system can be misleading. Indeed modern operating systems (including NT and OS/2) are designed to allow users to elect their user interface, or “personality.” Not many of the NT zealots who flame OS/2 on the comp.os.os2 newsgroups are aware that NT actually has an optional OS/2 “personality,” albeit OS/2 1.3. I haven’t seen it yet, but it is rumored there is a software package available that provides a Windows 95 personality for OS/2.

PACKED WITH PERSONALITY

To each his own, I suppose. Personally I’ve found OS/2 has a great personality. While Microsoft obviously dumped huge sums of money on psychologists and ergonomic research for the Windows 95

interface, two years later I find myself still marveling at the foresight and sound design of the Workplace Shell, a truly object-oriented user interface. The Workplace Shell is so flexible that it’s almost misleading to call it a personality at all. Indeed, it adopts, over time, the personality of the user. Take, for instance, the drive objects. The default drive objects have never worked quite to my satisfaction. By default they open in tree view; supposedly because that was closer to what users migrating from Windows File Manager would be expecting. I’ve found the constant necessity to resize the window to accommodate subdirectory expansion annoying, so I prefer icon view. It’s just a personal thing, of course; I probably overuse subdirectories (do you have many paths such as `\dev\c\src\ori\prj\cgi\rit\?`). But that is precisely my point. Over time, the myriad small user preference selections generate a workstation environment so intimate, I’ve talked leapers off of ledges by offering the hope that SofTouch’s UniMaint could recover their lost Desktop.

The Workplace Shell even provides an inveterate command-liner, such as myself, myriad facilities for organizing and streamlining my work. Indeed my method of operation is to create shadows of objects representing the various command files I use to perform my work and place them in folders on the Desktop. For example, to run the OS/2 Must-Have Website I’ve developed a number of REXX routines to ftp files, uncompress archives, store file descriptions and other procedures required to maintain a file archive site. Most of these are generic routines, of course, designed to be used for any number of purposes, so there is another layer of command files that orchestrate the process, e.g., call the FTP routine to retrieve all incoming files from a dozen

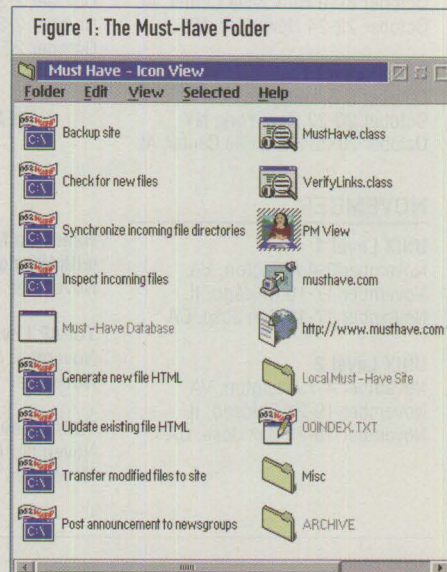
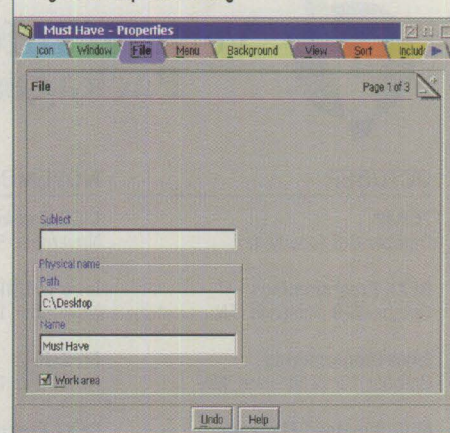


Figure 2: Properties Dialog



sources. Some of these are automated, called by a REXX scheduler, but many are not since they require some interaction on my part. For these I create shadow objects and place them in the Must-Have folder on my Desktop (see Figure 1). Then I simply point and click on these “units of work” to update the site, somewhat like the Wizard

of Oz wrenching his levers. Never mind the man behind the curtain.

I've also declared the Must-Have folder to be a work area by selecting the appropriate checkbox on the File page of the Properties dialog (see Figure 2). Work Areas are a wonderful feature for organizing your work, allowing you to minimize and restore any number of open objects, including applications and folders, simply by minimizing or restoring the Work Area folder itself. You can also close all running applications by closing the Work Area folder, and they will be launched automatically the next time the Work Area folder is opened. Amazingly this nifty feature of the Workplace Shell is infrequently used, although everyone uses one Work Area folder constantly: the Desktop itself. One word of caution, however: The Desktop is a special type of Work Area folder. Generic Work Area folders do not maintain their position in the background, meaning you cannot use them to create "virtual" Desktops.

THE PERFECT VEHICLE FOR BUILDING THE PERFECT BEAST

So now you know how it's done. The powerful command environment combined with the object-oriented Workplace Shell make OS/2 the perfect vehicle for building the perfect beast. Although this is the final installment in this series, there's obviously more. Next month, I'll examine the underlying object-oriented technology of the Workplace Shell, which will reveal many more ways to exploit the capabilities provided by OS/2, and discuss how that technology fits into IBM's strategy for taking computing into the next millennium. We're not in Kansas anymore, Toto. **ts**

Was this column of value to you? If so, please circle Reader Response Card No. 45.



Michael Norton is the workstation division manager at SoftTouch Systems, Oklahoma City, Okla., which provides both mainframe and PC software solutions. He has written mainframe manuals in addition to articles for a number of publications. Michael can be contacted at mnorton@softtouch.com.

Buying a New PC

BY AL SHING

In the three years that I have been writing this column, I've never received more than a few responses regarding my columns. However, I received a larger number than normal regarding my July column, "Installing a NetWare Client on Windows NT." Most were from NT consultants who could not believe that I had missed the fact that Gateway Services for Windows NT Server would in fact have solved my problem without having to use Novell's client. Yes, it's true — I did miss it. Just as 747 pilots sometimes crash on approach to airports, it is possible for Windows columnists to take a wrong turn and miss an easy solution to a

particular problem. It didn't help that at the time I had searching capabilities that were not working very well and I didn't want to spend a lot of time on the problem, but that happens to everyone. Funny how a new, faster machine makes everything all better. I found the information everyone was referring to fairly quickly when I did my searches again.

At any rate, I did go back and try the Gateway Services and found that it does establish NetWare connectivity just as well as the Novell client did, and, in fact, was very easy to install. It installs quickly, right from the Windows NT Server CD-ROM, and with a quick reboot, the NetWare servers become available under Network Neighborhood or under File Manager if NT 3.51 is used.

So, enough of the *Sturm und Drang* already. On to the topic of this month's

column, which is somewhat more light-hearted than recent columns.

BUYING A NEW COMPUTER SYSTEM

I recently went through the duty that some readers no doubt can identify with — that of helping dear old Mom buy her first PC. She was a Macintosh user in the job that she is retiring from and had never used a Windows PC in her life. I figured that since she was used to using Word and Excel and a mouse/icon interface there would be no problem.

She had been looking at machines sold in consumer stores that were inexpensive but had a bad support reputation. I had to convince her that the proper route to take was to buy a system that would be easier to support. Since I was doing the support, this was a very important point, at least to me. The objective was to purchase a system that would give her the most value for her dollar, be relatively turn key, and cause me the least amount of grief. Ideally, it would come with Office 97, and give her easy access to the Internet. I selected a local clone maker that I had dealt with before, more or less trusted, and was located close to her home, so she could take it there if she had problems with it.

The machine I chose had an ASUS TX97 motherboard with a Pentium 200MMX processor, 32MB of SDRAM, a 16x CD-ROM player, a 3.2GB Ultra-ATA hard disk, a 56KB fax modem, multimedia speakers, and a 17 inch monitor. The video card was

This was a system that was superior to any of the ones I use, and purchased for a fraction of what I had paid over the years to build up to the previous generation's technology.
